PRIMARILY ORGANIC SOLID-CHEMICAL COMPOSITION AND METHODS FOR ANAEROBIC BIOREMEDIATION

ABSTRACT

The present invention discloses the formulation and use of an advanced organic solid-media chemical composition designed and intended to enhance the removal of a broad range of contaminants in the environment by provided an improved means of promoting the anaerobic, biologically mediated degradation, transformation, and/or detoxification of the contaminants which may be present in solid and liquid wastes, soils, sediments, and water bodies. The invention provides for improved means of (i) promoting the solid-phase extraction and absorption of recalcitrant contaminants from contaminated media, (ii) creating, enhancing, and maintaining anaerobic conditions (i.e., negative Eh values), (iii) providing a source of carbonaceous co-substrates, anaerobic electron acceptors, and nutrient to promote the growth of contaminant-degrading microorganisms, and (iv) providing sources of inoculum of naturally occurring microorganisms which act to promote the biodegradation of contaminants.